

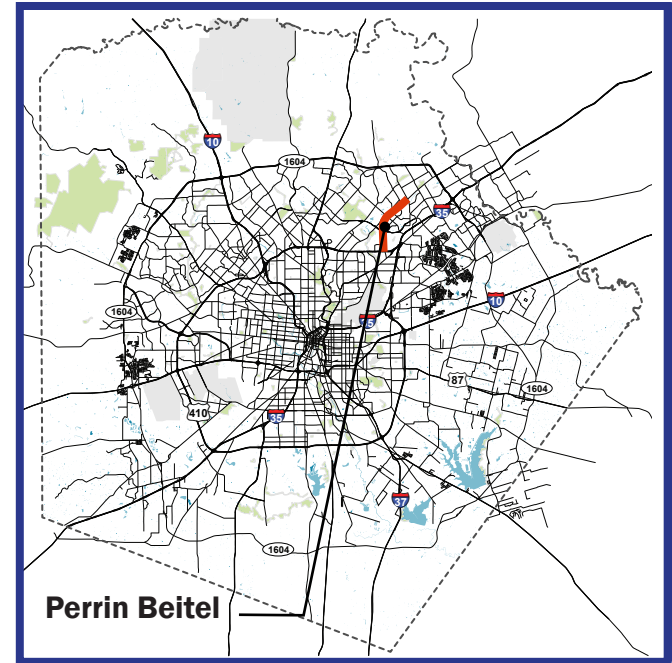
**Context**

The Perrin Beitel corridor connects Regional Centers (Rolling Oaks and NE I-35 and I-410) along Loop 410 and Loop 1604. It is also an extension of the Austin Highway/Broadway corridors which connects to Downtown. North of Thousand Oaks, the street name changes from Perrin Beitel to Nacogdoches.

Along the corridor, land uses are primarily commercial with some multi- and single family residential developments and institutional users adjacent to the roadway. The surrounding land uses are primarily residential but also some commercial and industrial. The road itself is a five lane section that carries a large amount of traffic and is congested at some of the major intersections such as Thousand Oaks. The corridor is sometimes utilized as a relief route when there are incidents on Interstate 35, further adding through traffic to the road.

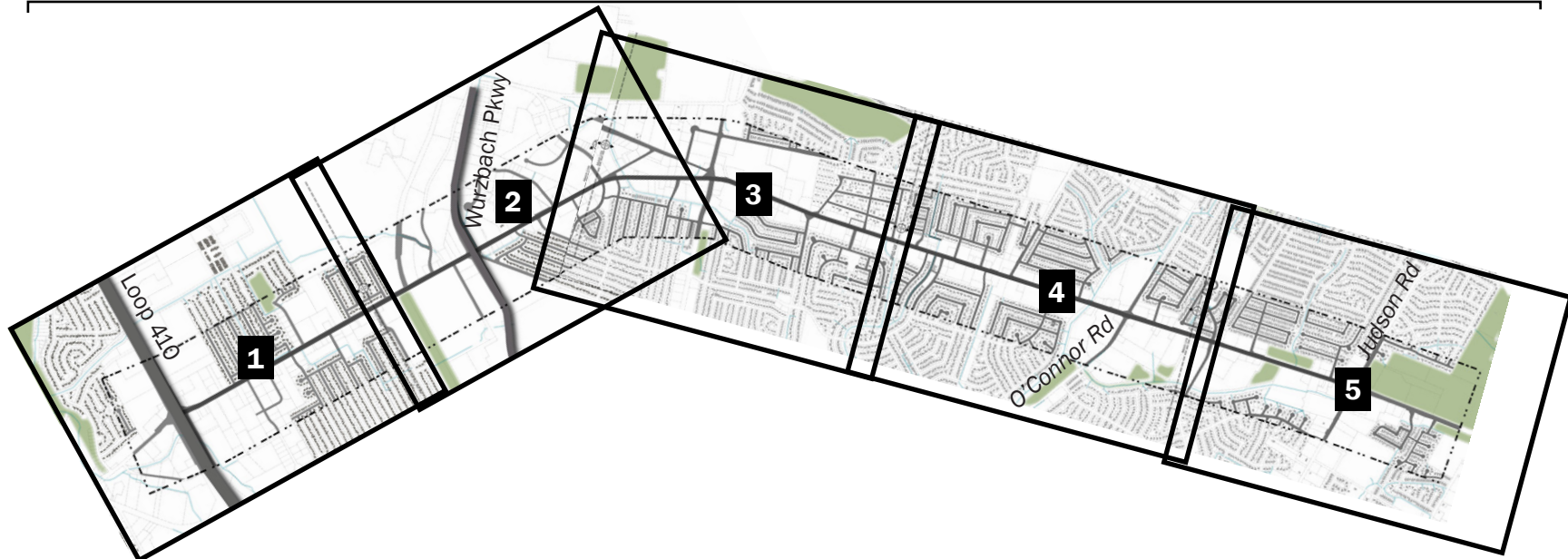
There are many closed businesses and vacant properties along the corridor. Economic revitalization of the Perrin Beitel corridor should be a key component of any improvements strategy.

The City of San Antonio Department of Community Planning and Development completed a Northeast Corridor Revitalization Plan in June 2014 for the Perrin Beitel and Nacogdoches corridors. The focus of the plan is on activating vacant and underutilized properties, and improving through the appearance of the area through the investment of public and private funds. The plan called for the designation of a Tax Increment Reinvestment Zone (TIRZ) to fund infrastructure improvements. There may be an opportunity to utilize the TIRZ funds for some or all of the recommendations identified along the corridor.



*Perrin Beitel Sheet Set Key*

5.3 Miles



## Vision

**Perrin Beitel** will become a multimodal corridor that can help support new development to revitalize the area. By providing more accommodations for pedestrians, bikes, and transit, the corridor can transition from being viewed as a through commuter route to a destination that can attract new businesses.

## Future

- 2040 Volumes – Daily volumes on Perrin Beitel/Nacogdoches will increase by 35% from 2015 to 2040. The highest volumes will occur near Loop 410 and Wurzbach Parkway where Perrin Beitel will carry about 45,000 vehicles per day.
- Growth Rate – the annual growth rate along Perrin Beitel is projected to be about 1.5% per year based on data in the Alamo Area MPO model.
- Future LOS – The results of the traffic analysis performed from Thousand Oaks to Loop 410 shows that the intersections at Loop 410, Wurzbach Parkway and Thousand Oaks will function at LOS F during both peak hours in year 2040.

## Policy & Guidance

**Access Control** – Strategically close driveways to improve pedestrian paths and minimize driveways adjacent to intersections. Consider the installation of a raised median.

**Speed Limits** – As the corridor transitions away from being a commuter route, a lower speed limit may be more compatible with the new multimodal corridor. The current speed limit is 45 mph.

## Policy & Guidance continued

**Barg Utilities** – Overhead utilities should be placed underground to improve the appearance of the corridor and to remove pedestrian barriers.

**Land Use** – Develop an overlay plan that directs development to under utilized parcels.

## Issues

**Roadway** – Perrin Beitel has high traffic volumes, and congestion is expected to increase in the future. There have been six fatal crashes over a three year period from 2012 to 2014. The freeway interchanges at Loop 410 and Wurzbach Parkway have high crash frequencies. Driveways located adjacent to signalized intersections create operational and safety issues.

**Transit** – VIA's Vision 2040 Plan has identified the Broadway/Austin Highway/Perrin Beitel/Nacogdoches corridor as a candidate for Rapid Transit service into downtown in the future. Rapid Transit can be BRT or light rail. Either service would take place in dedicated ROW. VIA has projected high ridership along this corridor.

**Bicycles** – There are no bicycle facilities on Perrin Beitel, and few options for parallel routes. The Salado Creek trail near the corridor's southern terminus and Comanche Lookout Park in north provide bike destinations along the corridor.

**Pedestrian** – There are continuous sidewalks along the corridor but some areas have missing or substandard curb ramps. Sidewalks are typically four to five feet in width and at the back of the curb. There have been pedestrian fatalities in 2012 and 2013. New developments such as a senior center near Thousand Oaks and Perrin Beitel increases the need for safe pedestrian facilities.

**Land Use** – Land uses are primarily small commercial business with large parking lots. There are many closed businesses along the corridor. Current land uses are not supportive of transit and are vehicle-dependent.



Thousand Oaks Dr and Perrin Beitel Rd



Perrin Oaks Plaza



General Mail Facility, Post Office Dr



Woodstone at Dreamwood Residents



Clear Spring Dr & Perrin Beitel Rd



Semmes Library



Future Option 1: BRT + Multimodal Improvements



**Strategies**



Widen sidewalks



Add raised cycle track

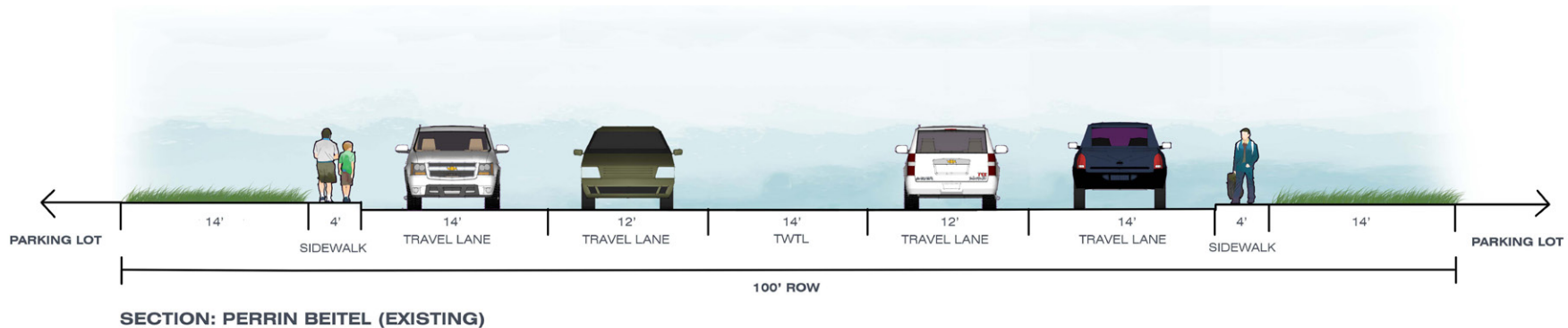


Add dedicated BRT or Flex lane to allow vehicular traffic in off-peak periods (May require additional ROW in some locations) between Loop 410 and Wurzbach Pkwy.



Install raised median with left-turn lanes and openings at selected locations.

This section of Perrin Beitel has 2 travel lanes in each direction with a continuous two-way center turn lane the entire length. The posted speed is 45 mph and the volumes are about 25,000 to 30,000 vehicles per day (2015). The right-of-way (ROW) width varies from a minimum 100 feet to 120 feet. Numerous commercial businesses line both sides of the street creating closely spaced driveways. There are numerous bus stops located along both sides of the street and VIA has two main bus routes that service the area – Route 14 and Route 642.



## Multimodal Opportunities

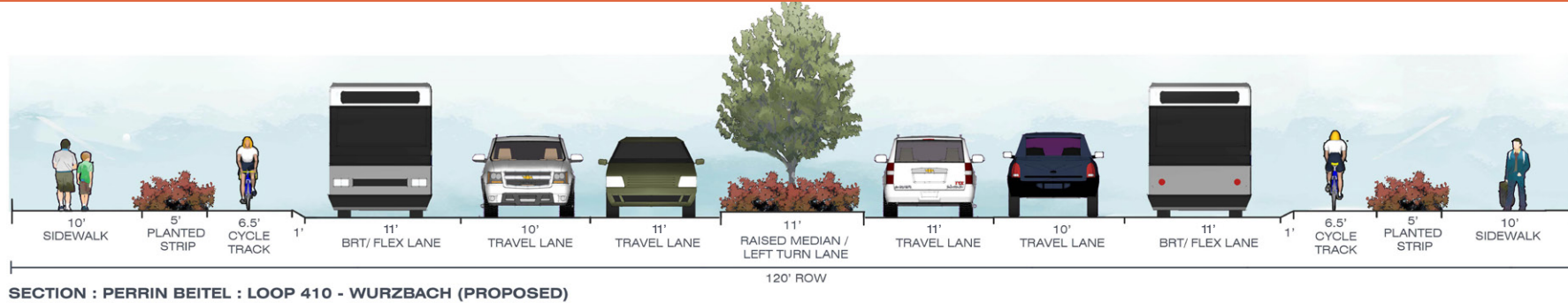
Improving transit operations and providing safe paths for bikes and pedestrians can help revitalize the corridor and support local retail. However, Perrin Beitel is also an important mobility corridor, connecting large neighborhoods in northeast San Antonio to Loop 410, Loop 1604 and Wurzbach Parkway. With high existing traffic volumes, and increased congestion by 2040, it was determined that reducing the number of travel lanes to accommodate other modes would not be feasible. The ROW varies from 100 feet to 120 feet along the corridor allowing for multimodal improvements without reducing lanes.

Replacing the center turn lane with a raised median where possible will improve access management, provide pedestrian refuge, and provide branding opportunities for the corridor. A wide, 10 foot sidewalk separated from the travel lanes and cycle track provides a safer pedestrian environment and will support denser, mixed use development along the corridor.

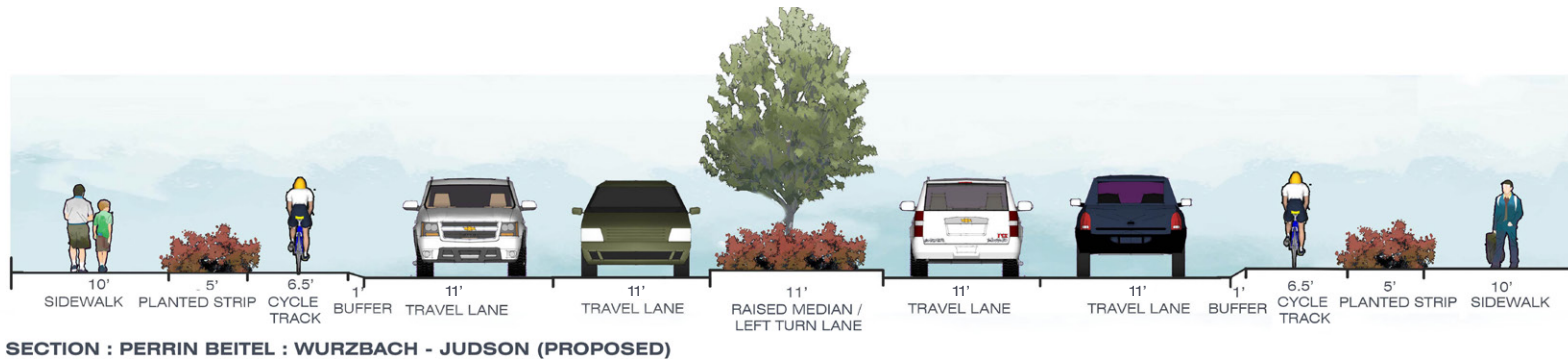
While this concept provides enhanced facilities for pedestrians, bikes, and transit, it also precludes the construction of additional travel lanes in the future. The intersections at Loop 410, Wurzbach Parkway, and Thousand Oaks will all function at LOS F in 2040. However, the traffic analysis shows that even a 6 lane section will be congested in 2040, and six lanes will not allow pedestrian and bike facilities that can support denser developments that are not as dependent on vehicles. As with many corridors in San Antonio, there are tradeoffs between maximizing vehicular capacity and providing alternate travel options and land use patterns that reduce dependence on vehicles.



**Future Option 1: Loop 410 - Wurzbach at 120' Right-Of-Way**



**Future Option 2: Wurzbach - Judson at 100' Right-Of-Way**



**Description:**

The proposed cross section from Judson Road to Wurzbach Parkway has about 100 feet ROW. A raised cycle track and sidewalk can be provided while still maintaining four travel lanes. The cycle track will connect to the adjacent neighborhoods and to the Salado Creek Trail approximately one mile west of Perrin Beitel. Establishing a bike connection between Perrin Beitel and the trail can transform the cycle track from a local bike facility to an important part of a connected, city-wide bike system.






North of Loop 410 the ROW is 120 feet. Dedicated transit lanes can be accommodated in this wider section of Perrin Beitel, but it only extends for a short distance. If 120 feet of ROW can be acquired north to Wurzbach Parkway, dedicated BRT lanes could be constructed between Loop 410 and Wurzbach Parkway. If there are small sections where the right of way cannot be acquired, reducing sidewalk and buffer widths will allow the dedicated bus lane to continue through short lengths of 100 to 110 foot right of way. The BRT lane could be a flex lane where general purpose traffic is able to use the lane outside of peak periods or it can be an HOV lane to encourage carpooling. North of Wurzbach Parkway, the BRT service can continue in mixed flow.

**Opportunities:**

- VIA has identified this corridor as a candidate for Rapid Transit service with dedicated ROW. If light rail or Primo are implemented, higher density development could be encouraged.
- Connections to transit, the Salado Creek Trail, and Comanche Lookout Park are indicative of demand for bicycle facilities and make Perrin Beitel a good candidate for a physically separated design.
- The Northeast Corridor Initiative has developed a plan to revitalize the corridor and set up a TIRZ for funding. The TIRZ could be a source of funding for the proposed long term options along this corridor.

**Challenges:**

- High traffic volumes make repurposing lanes infeasible.
- VIA has identified this corridor as a candidate for Rapid Transit service with dedicated ROW.
- There are no bike facilities on Perrin Beitel and the adjacent road network does not have the grid pattern for use of an alternate parallel facility.
- The Northeast Corridor Initiative has developed a plan to revitalize the corridor and set up a TIRZ for funding. Coordination with this group, stakeholders, the City and VIA is needed for a successful transition to a multimodal corridor.

					Recommendations	Benefits
					Bury overhead utilities	Relocating utilities below grade will improve the appearance of the corridor, the pedestrian environment and help the corridor achieve ADA compliant facilities.
					Reduce driveway density	Consolidating driveways will concentrate turning movements to appropriate areas. This will reduce the number of conflict points between cyclists, pedestrians, and vehicles.
					Create raised cycle track along Perrin Beitel	A future bike facility is planned on Perrin Beitel. High traffic volumes and even higher future volumes will require a bicycle facility that is separated and protected from vehicular traffic. This will increase safety and encourage alternative transportation use on the roadway.
					Implement BRT Service	Establishing rapid transit service on Perrin Beitel will improve capacity by moving more people and will encourage development that is compatible with the adjacent neighborhoods and supports transit.
					Improve pedestrian facilities by completing the sidewalk network	The addition of improved sidewalks will not only make pedestrian travel safe and accessible, it will also improve access and encourage the use of future transit investments.



Transit Improvements



Pedestrian Improvements



Bicycle Improvements

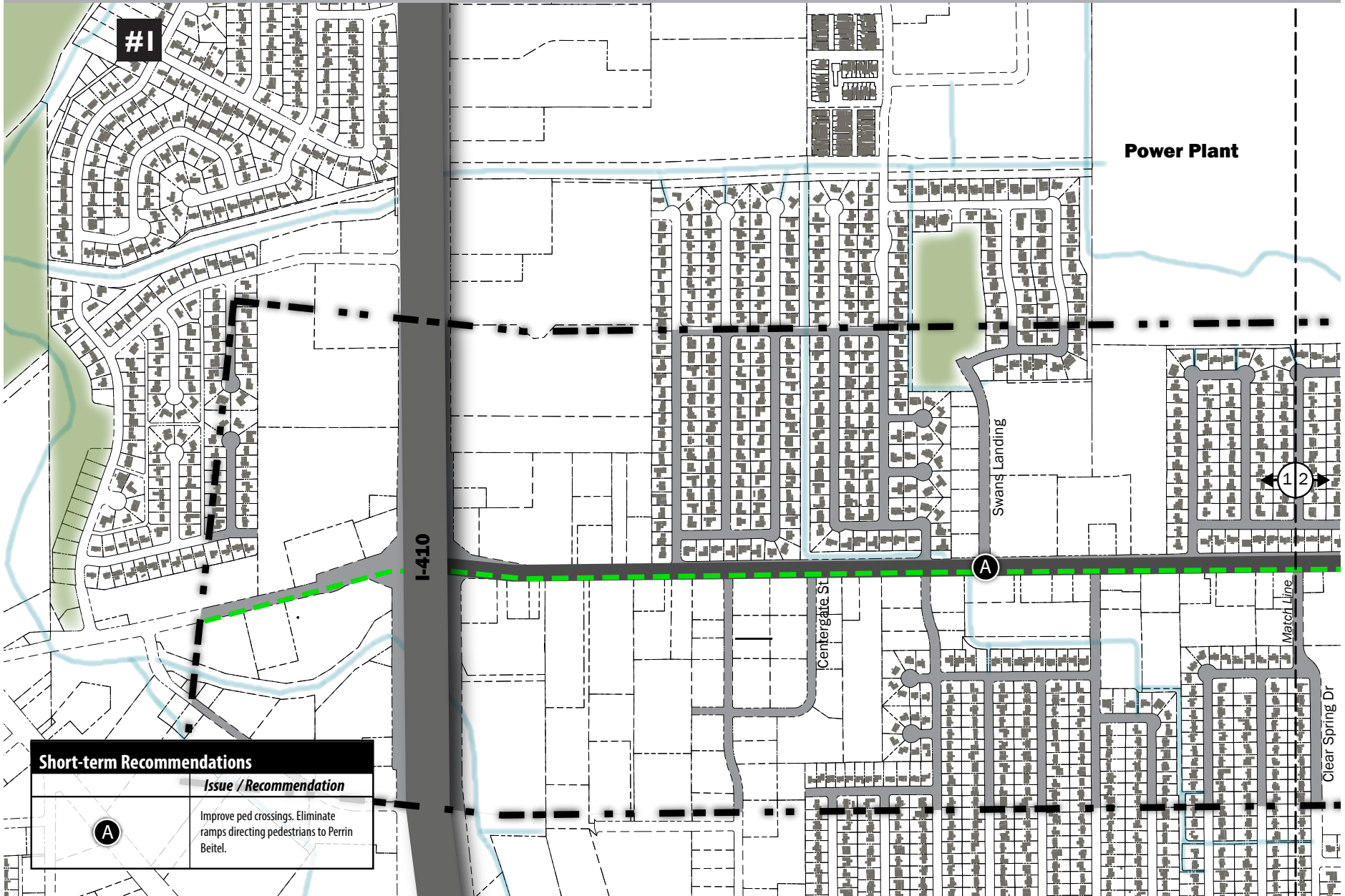


Vehicular Improvements



Land Use Improvements

# SUBURBAN



Short-term Recommendations	
Issue / Recommendation	
A	Improve ped crossings. Eliminate ramps directing pedestrians to Perrin Beitel.

Perrin Beitel Rd Corridor Analysis: Sheet 1 Short Term Recommendations

**DRAFT IN-PROGRESS** 04.12.2016

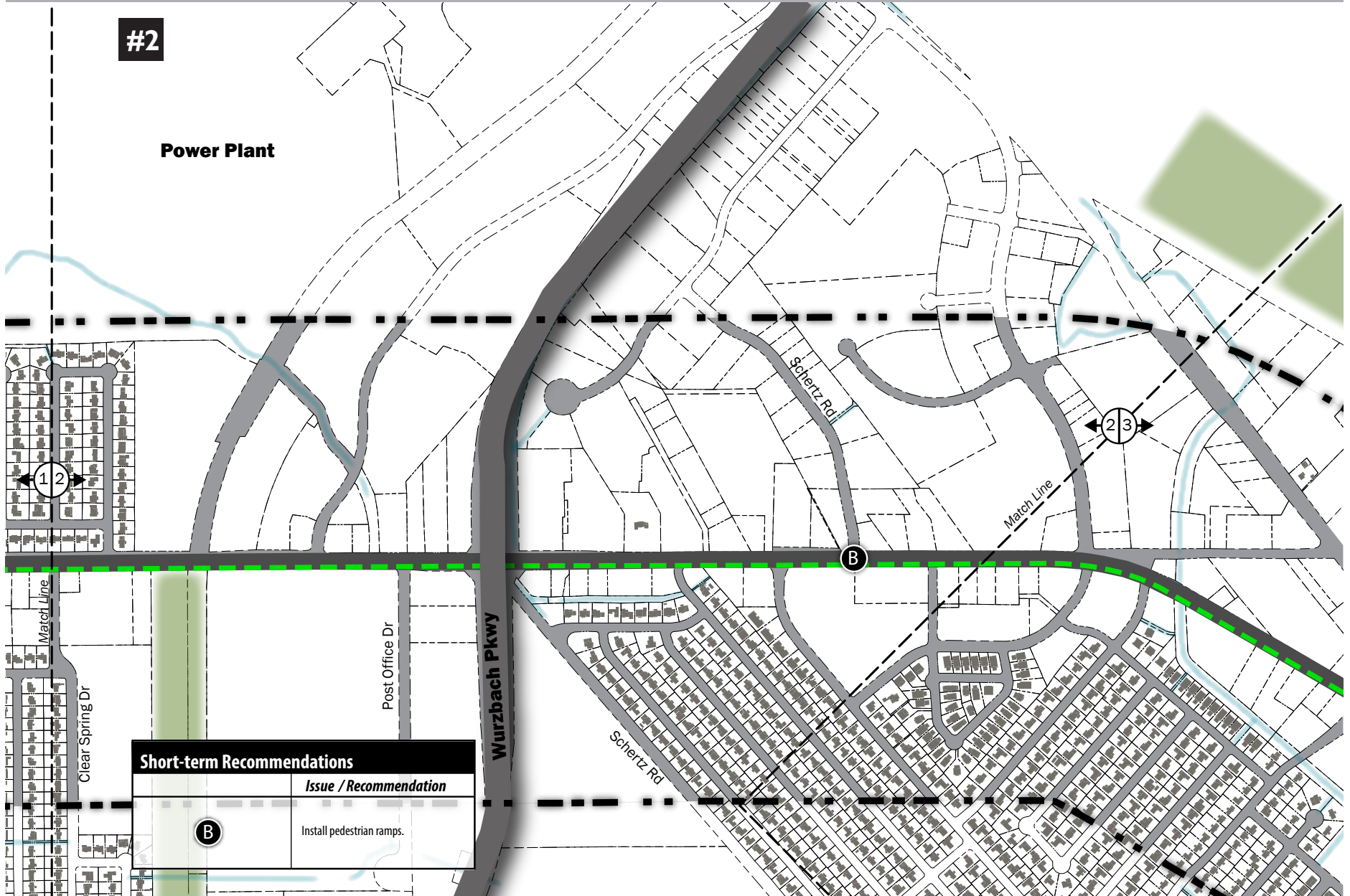
- Open Space
- Study Area





#2

Power Plant



Short-term Recommendations	
	Issue / Recommendation
B	Install pedestrian ramps.

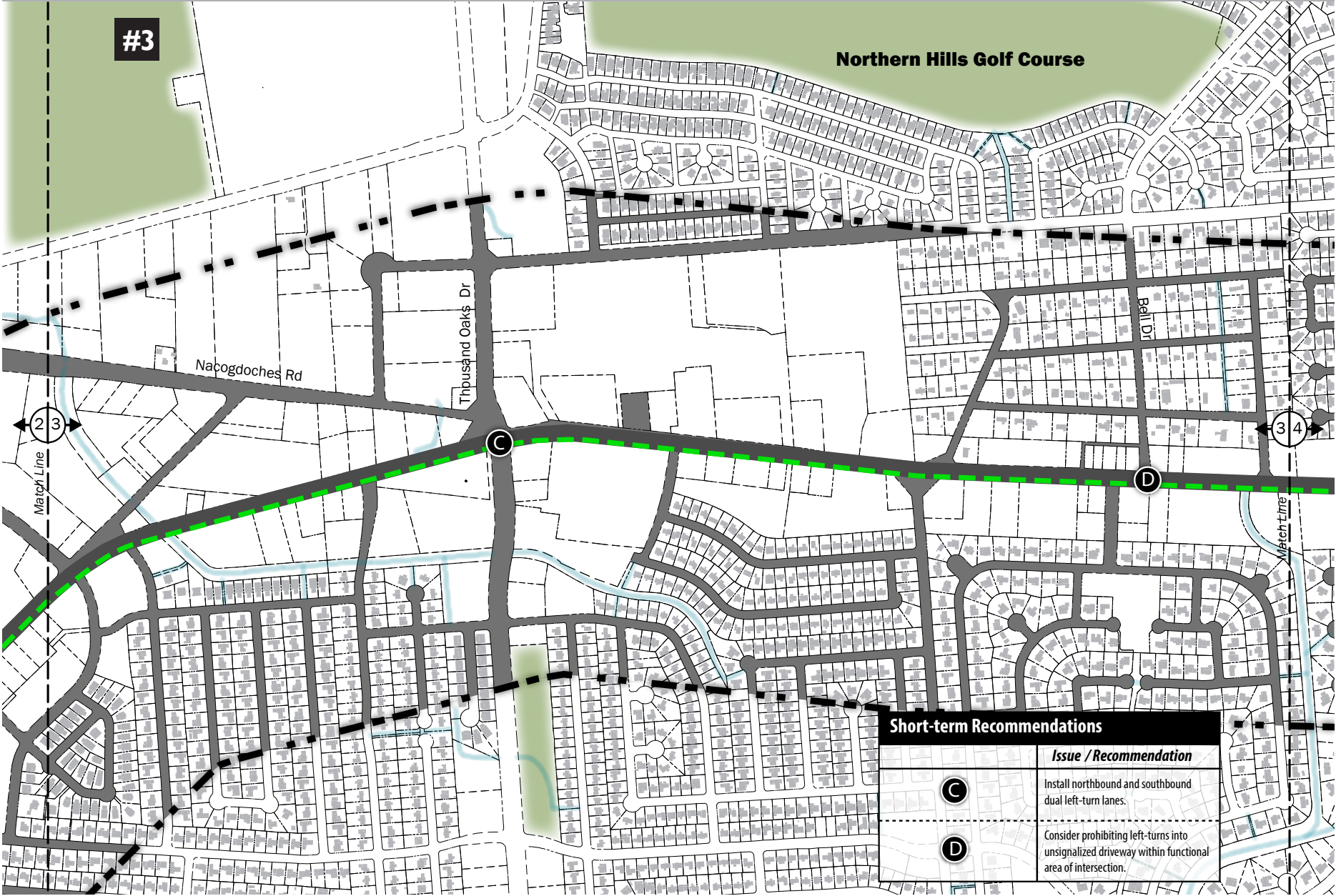
Perrin Beitel Rd Corridor Analysis: Sheet 2 Short Term Recommendations

DRAFT IN-PROGRESS 04.12.2016

- Open Space
- Study Area



SUBURBAN



Perrin Beitel Rd Corridor Analysis: Sheet 3 Short Term Recommendations

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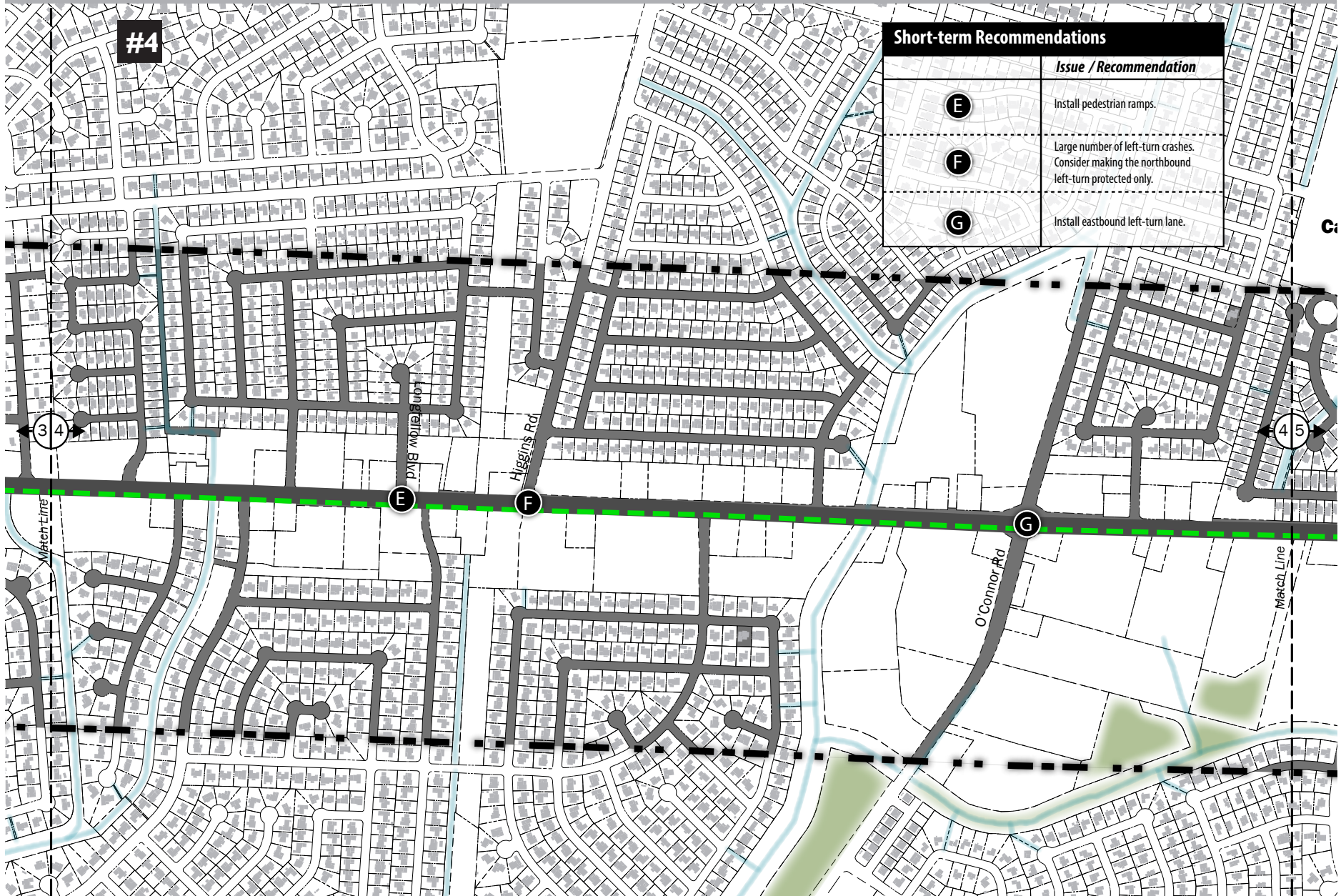
Open Space  
Study Area





#4

Short-term Recommendations	
	Issue / Recommendation
<b>E</b>	Install pedestrian ramps.
<b>F</b>	Large number of left-turn crashes. Consider making the northbound left-turn protected only.
<b>G</b>	Install eastbound left-turn lane.



Perrin Beitel Rd Corridor Analysis: Sheet 4 Short Term Recommendations

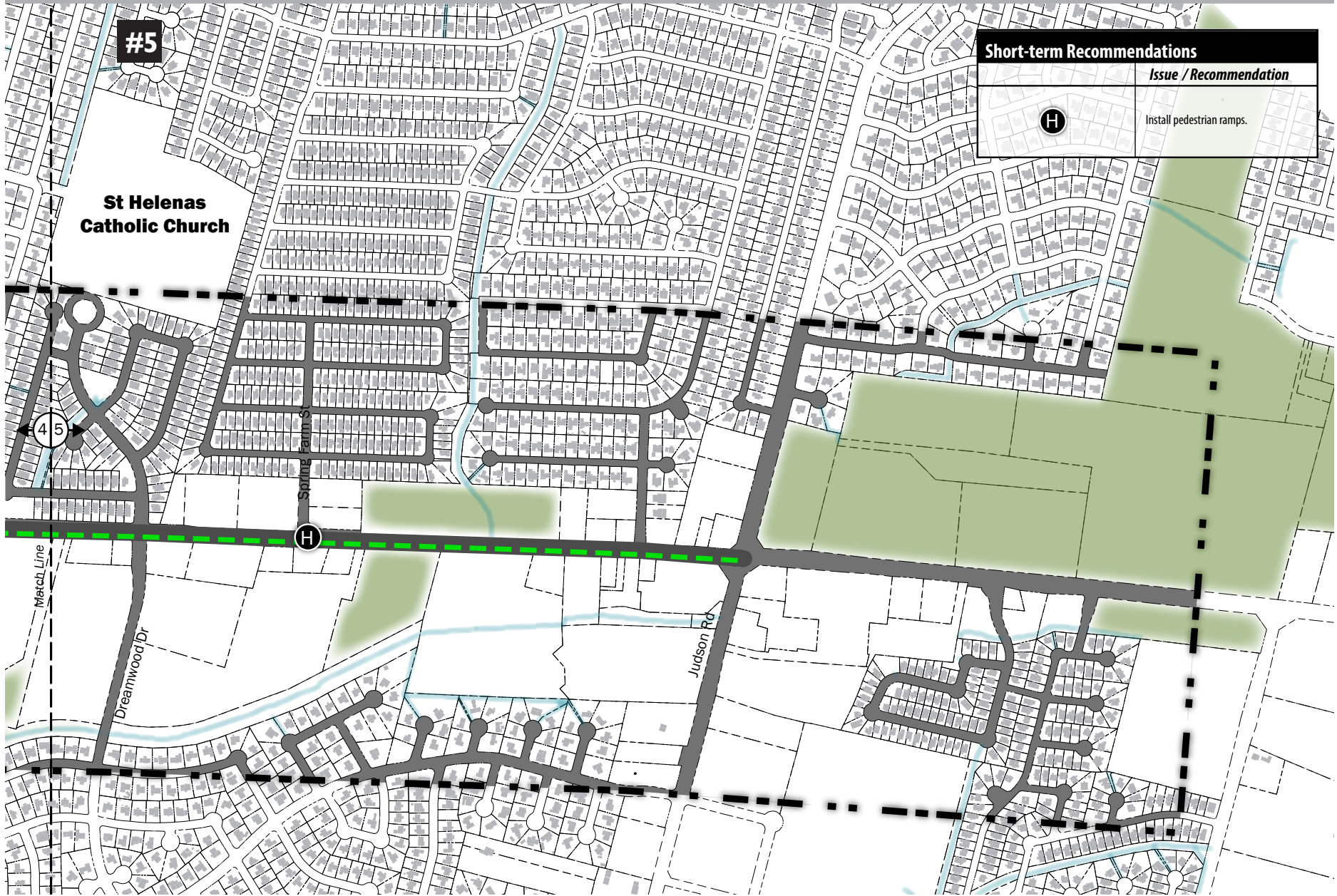
**DRAFT IN-PROGRESS** 04.12.2016

Open Space  
Study Area





SUBURBAN/RURAL



Short-term Recommendations	
Issue / Recommendation	
	Install pedestrian ramps.

Perrin Beitel Rd Corridor Analysis: Sheet 5 Short Term Recommendations

**DRAFT IN-PROGRESS** 04.12.2016

- Open Space
- Study Area



**Context**

San Pedro connects downtown to Loop 410 and San Antonio International Airport. For much of the corridor, there are commercial land uses fronting the road, with established residential neighborhoods behind them.

North of Basse, San Pedro is a seven-lane roadway with 120 feet of right of way. The north end of the corridor provides access to North Star Mall and the North Star Transit Center.

North of Hildebrand Avenue, San Pedro crosses the UPRR rail line, creating a significant barrier, but also a potential opportunity to connect to the future Lone Star Rail.

In the southern section, San Pedro is a five-lane road that provides access to cultural resources such as the Central Library, San Pedro Park, and San Antonio College. North of San Antonio College, the right of way narrows, and San Pedro becomes a four-lane road with narrow lanes and sidewalks.

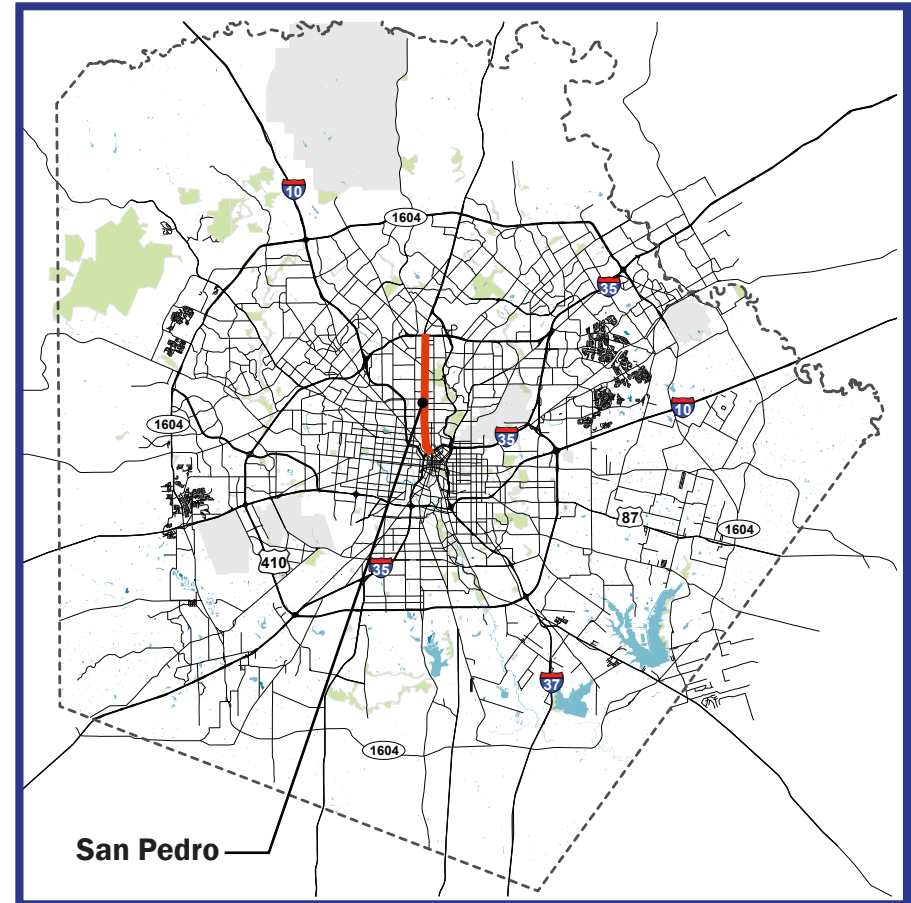
San Pedro has a high driveway density throughout much of the corridor

impacting bike and pedestrian safety and comfort. There are no bike facilities on San Pedro, and the high traffic volumes and high speeds are not conducive to bicycle use. The grid of residential streets surrounding the San Pedro corridor could provide alternate routes for bikes.

Sidewalks are continuous throughout most of the corridor, but are very narrow in many places with obstructions. There are numerous sidewalk gaps on roads intersecting San Pedro, limiting pedestrian connectivity to adjacent neighborhoods.

There are multiple bus routes and frequent stops along the corridor. The current high ridership, combined with a potential connection from downtown to the airport and to North Star Transit Center makes San Pedro a viable candidate for light rail or BRT.

Traffic congestion is an issue for any reconfiguration of the San Pedro corridor. With the current configuration, the major intersections on San Pedro will operate at LOS F by 2040. Dedicated transit lanes require the removal of a travel lane and will increase vehicle congestion.



San Pedro Sheet Set Key

5.5 Miles





## Vision

The northern section of **San Pedro** offers the greatest opportunity for substantial change to both the transportation system and the land use form and mix. This transformation is made possible by reassigning a portion of the very wide right of way. A higher-density, more walkable corridor featuring transit-supportive development and the addition of a light rail system with connections to the airport, the north side, North Star Transit Center and the future Lone Star Rail Station is possible. The investment in light rail service on San Pedro will spur redevelopment that supports a compact mix of uses creating a walkable environment. Transportation along San Pedro will move more people per lane mile than currently possible with single occupant vehicles and buses. The southern section of San Pedro will feature a Main Street design with neighborhood retail and businesses, featuring a pedestrian-scale environment with streetscaping and on-street parking.

## Future

- **Traffic volumes** along San Pedro will increase by 60% by year 2040 with 45,000 vehicles per day near Basse Road and 30,000 vehicles per day near Hildebrand.
- **Growth Rate** – the annual growth rate is projected to be about 2% per year based on the Alamo Area MPO model.
- **Future LOS** – Traffic analysis performed from Loop 410 to Cypress, show only 2 intersections experience LOS E or F today (2015). However, 14 of the 25 intersections will function at LOS E or F during one or both peak hours in year 2040.
- **VIA** is considering San Pedro for rapid transit service as part of Vision 2040.
- An important **multimodal connection** will occur near Hildebrand if the proposed Lone Star Rail service is implemented and the planned station is located there.

## Policy & Guidance

**Access Control**– Strategically close or consolidate driveways to reduce pedestrian and cyclist conflicts and minimize driveways adjacent to intersections

**Zoning** – Create an overlay that guides development compatible with the plans for rapid transit.

**Utilities:** Bury utilities to improve appearance and remove barriers to accessibility

## Issues

Facility Near Oblate Drive



North Star Mall



Rail Underpass



North Star Transit Facility



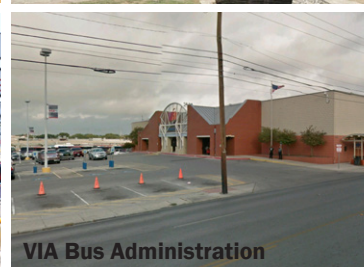
Facility Near Highway 410



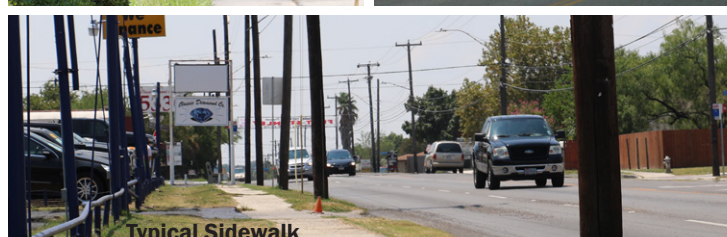
San Pedro Park



VIA Bus Stop



VIA Bus Administration



Typical Sidewalk

**Roadway** –The roadway is very narrow between Ashby and Hildebrand, with the right of way as narrow as 50 feet. This results in ten foot lanes, impacting transit. A lack of turn lanes at some side streets creates inefficient operations and poor levels of service. The geometry at some intersections maybe contributing to the large number of crashes. Two locations will present significant challenges for improving the corridor:

- 1) The Railroad bridge north of Hildebrand requires San Pedro to travel below grade, with narrow lanes. This is a barrier for cyclists and will be a major challenge for any significant improvement along the corridor.
- 2) The Olmos Creek bridge presents significant challenges for improvements with 7 lanes, curbs and narrow sidewalks abutting the guardrail and railings.

**Transit** –Narrow lanes are not ideal for transit, and the narrow sidewalks limit options for bus shelters, benches and wheelchair accommodations.

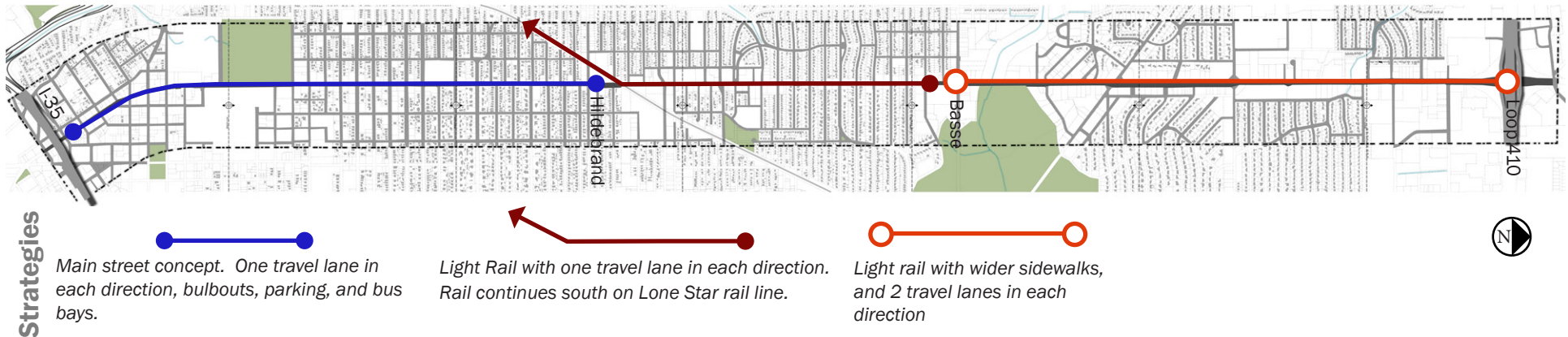
**Bicycles** –There are no bicycle facilities on San Pedro, and the speeds and traffic volumes are not conducive to cycling in the travel lanes. There is a grid network of residential roads around San Pedro which could be used as bike routes, but there are currently no marked parallel routes.

**Pedestrian** – In many locations there are only four foot sidewalks due to the narrow right of way. Sidewalk gaps along side streets and the lack of connections to the residential streets in the northern portion of the corridor limit accessibility to the east and west. Interchanges at Loop 410 and I-35 present barriers to pedestrians and cyclists. Wide intersection spacing limits opportunities for pedestrian crossing safely.

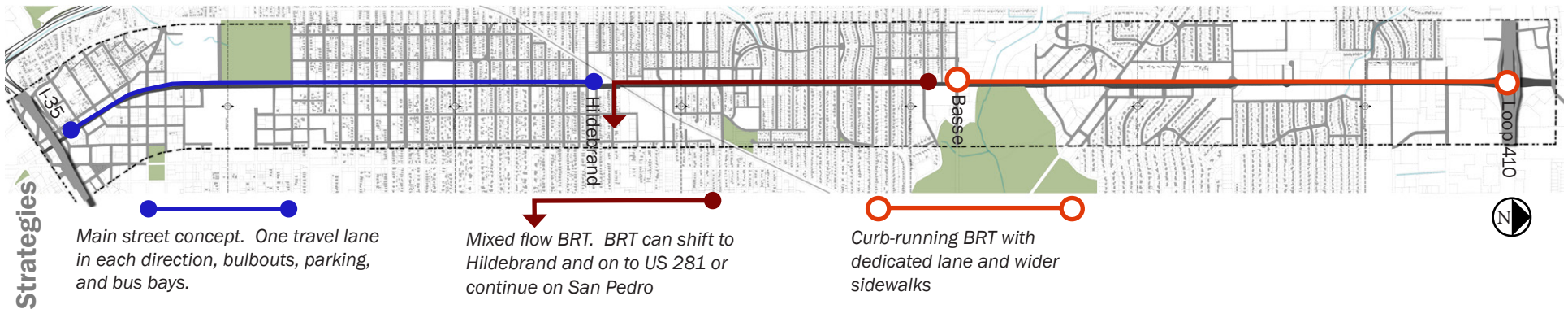
**Land Use** – Commercial land uses are not pedestrian or transit friendly. A transition to more dense, mixed use developments would better complement the future transit corridor. The southern section is a mix of small commercial and residential parcels. As redevelopment occurs, denser development could help reinforce a Main Street design concept.



**Future Option 1: Light Rail + Main Street**



**Future Option 2: BRT + Main Street**



**Future Aspiration: Transit - Only Street**

In the long run, a vision of San Pedro as a “transit first” corridor is worthy of serious consideration. Increasing transit ridership and growing automobile congestion in the corridor will precipitate bolder choices that will require modifying current practice. As the community grows more comfortable with an expanding and increasingly effective transit system, a transit first or even “transit only” treatment may become a realistic and necessary option to meet travel needs.

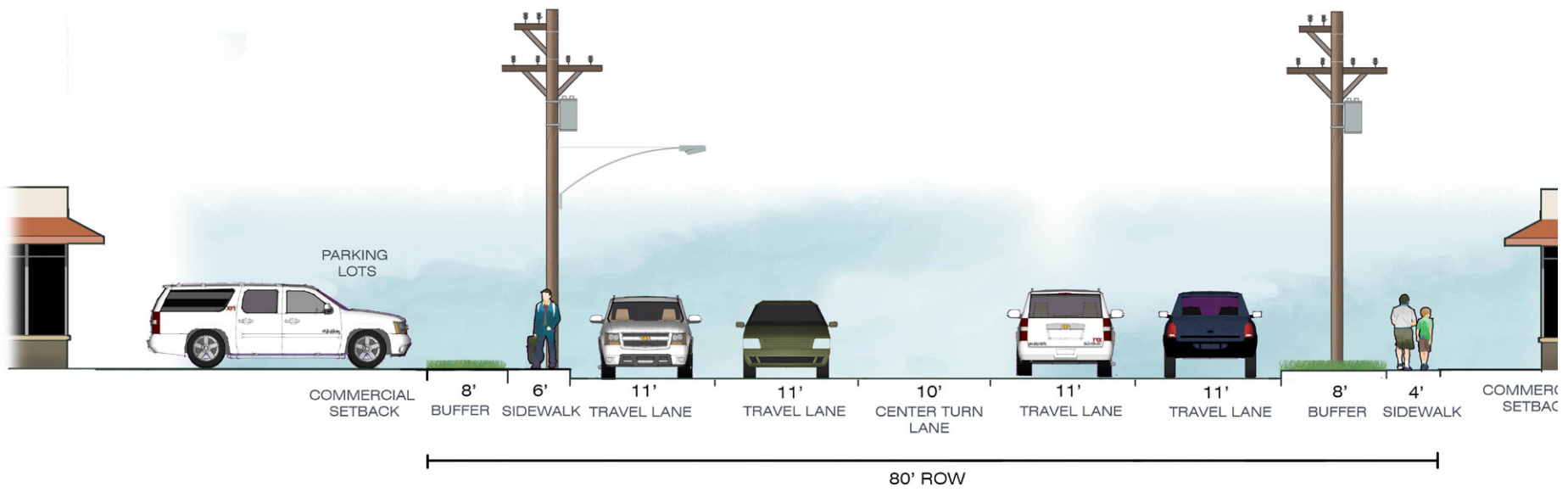


South of Hildebrand

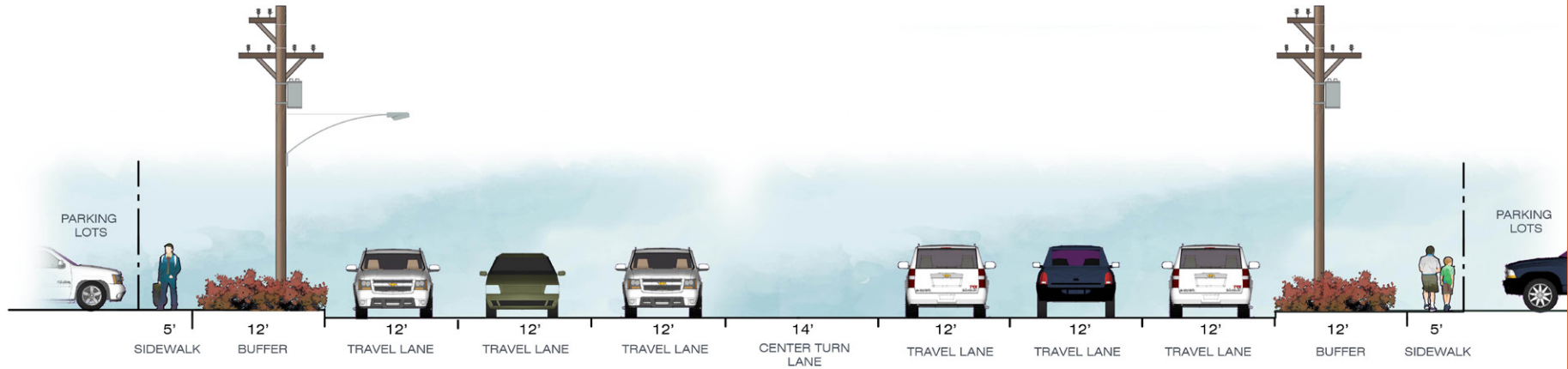
Hildebrand to Basse



**SECTION : SAN PEDRO : SOUTH OF HILDEBRAND (EXISTING)**



**SECTION : SAN PEDRO : HILDEBRAND - BASSE (EXISTING)**



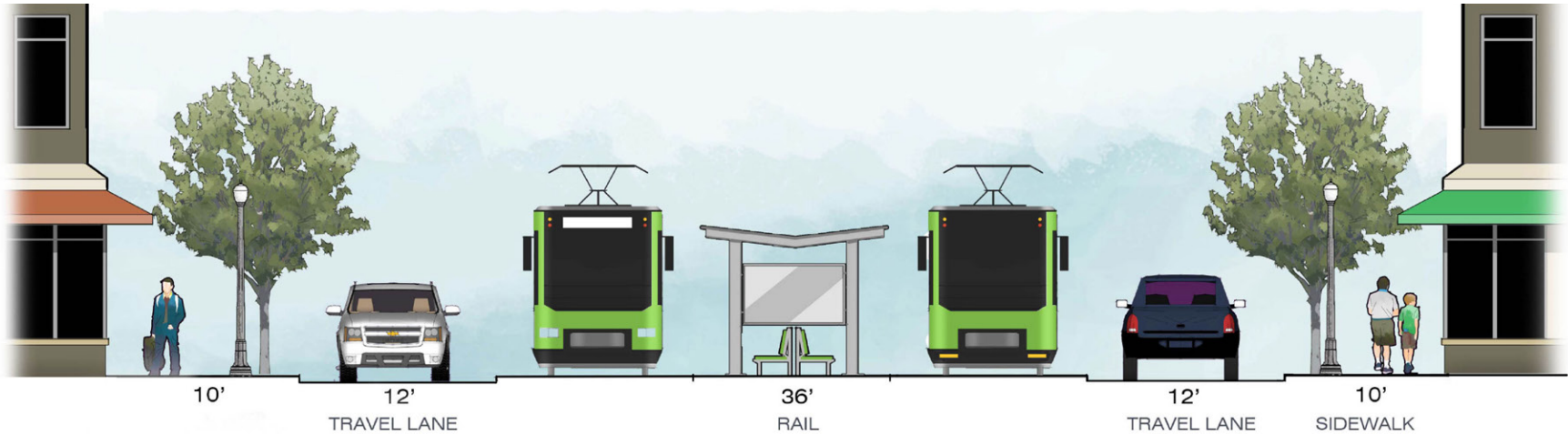
**SECTION : SAN PEDRO : BASSE - LOOP 410 (EXISTING)**



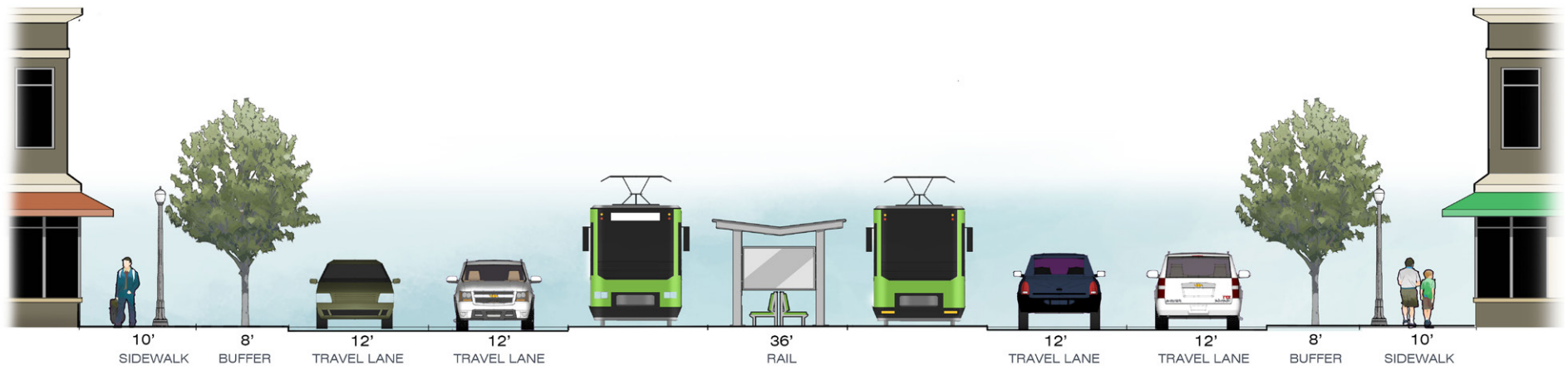
Multimodal Opportunities

The high ridership projections and connections to regional centers make San Pedro a good candidate for high capacity transit. Transit could be in the form of light rail (LRT) or bus rapid transit (BRT) in dedicated lanes. Due to the very narrow right of way south of Hildebrand, creating dedicated rail or bus lanes is not feasible. For LRT, a potential option would be to continue the rail south on the existing rail tracks that intersect San Pedro near Hildebrand. This is also a potential Lonestar Rail corridor. The BRT route could continue on Hildebrand to US 281, where it could become an express service to downtown.

Future Option 1: Light Rail + Main Street



SECTION : SAN PEDRO : HILDEBRAND - BASSE (OPTION 1)



SECTION : SAN PEDRO : BASSE - LOOP 410 (OPTION 1)

**Future Option 1: Light Rail + Main Street**

**Description:**

The high transit ridership projections and available connections to regional centers make San Pedro a good candidate for rapid transit. Transit could be in the form of light rail (LRT) or bus rapid transit (BRT) in dedicated lanes. Option 1 proposes to construct center-running light rail along San Pedro. Stations would be located on the center median. South of Hildebrand to Basse Road the available ROW reduces from 120 feet to 80 feet. The light rail would continue in the center but with a single traffic lane in each direction.

A traffic analysis of the corridor in 2040 was performed. The results show that the existing seven-lane corridor will have a capacity of approximately 2,500 vehicles per hour in the peak direction in 2040. Assuming a standard rate of 1.2 persons per vehicle, the corridor will move approximately 3,000 people per hour or 1,000 people per lane per hour. When a lane is removed in each direction to accommodate transit, the corridor will carry approximately 2,100 people per hour in vehicles in the peak direction of travel. LRT will remove a traffic lane in each direction, however, it can still improve capacity. LRT can carry 4,050 people per hour assuming 10 minute headways, which means the corridor will carry 6,150 people per hour compared with the 3,000 without LRT. This is more than doubling the capacity. The potential to double the capacity of the corridor not only helps the San Pedro corridor, but also greatly improves north-south mobility for the region. The travel demand model shows all parallel arterials will also be over capacity, so a light rail service can add capacity through a part of the City that will greatly need it in 2040.

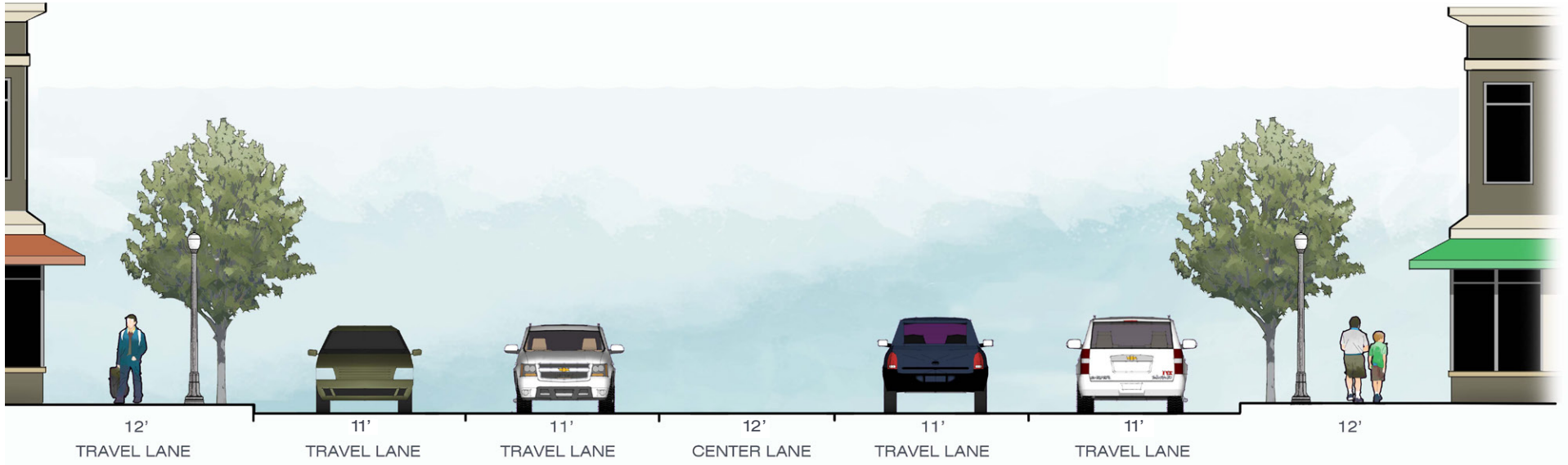
**Opportunities:**

- Existing and projected high transit ridership will provide a foundation for implementing light rail.
- The seven lane cross section along the northern segment of San Pedro and connections to the North Star Transit Center, the airport, Park North Shopping Center and North Star Mall make San Pedro a good candidate for north-south light rail service into downtown.
- The proposed Lone Star Rail service and station near San Pedro and Hildebrand will create a multimodal node. The City and VIA should focus investments on improvements that promote connections with bike, transit and pedestrian facilities, create placemaking, and encourage Transit Oriented Development (TOD) at and around the station.
- LRT is a permanent investment that can spur development. Adding population and employment centers along the LRT line will shift trips from cars reducing VMT.

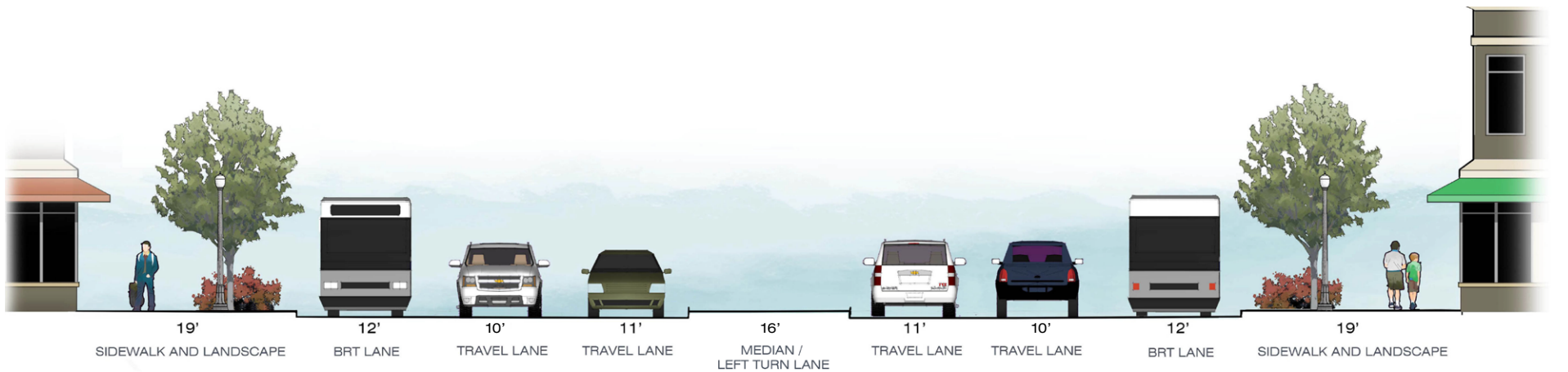
**Challenges:**

- Traffic congestion is an issue for any reconfiguration of the San Pedro corridor and adding capacity through widening would require significant ROW acquisition. In its current form, the major intersections on San Pedro will operate at LOS F by 2040. Dedicating traffic lanes for LRT will further increase vehicle congestion, but will still increase capacity by moving more people and improving travel time for transit users.
- The character and ROW on San Pedro changes several times as you move from Loop 410 south into downtown. Proposed improvements and changes to land use must be context sensitive.
- Successful rapid transit options rely on transit supportive development. Land use policies that encourage higher-density development are needed to support LRT.
- The railroad bridge near Hildebrand and the Olmos Creek bridge present design challenges for incorporating LRT.

Future Option 2: BRT + Main Street



**SECTION: SAN PEDRO: HILDEBRAND - BASSE (OPTION 2)**



**SECTION : SAN PEDRO : BASSE - LOOP 410 (OPTION 2)**



**Future Option 2: BRT + Main Street**

**Description:**

The high transit ridership projections and available connections to regional centers make San Pedro a good candidate for rapid transit. Transit could be in the form of light rail (LRT) or bus rapid transit (BRT) in dedicated lanes, known as Primo Plus in VIA's Vision 2040 plan. Option 2 proposes to implement BRT along the outside lanes on San Pedro. BRT has dedicated lanes, unique branding, longer articulated buses, level-boarding, and stations with amenities. BRT can carry approximately 600 people per hour when operating at 10 minute headways or 1,000 people per hour at 5 minute headways. The BRT option will carry slightly fewer or the same number of people per hour per lane than a single travel lane. However, it will not be subject to the anticipated high levels of congestion, since it will operate in a dedicated lane and will provide reliable and rapid service on an otherwise heavily congested corridor.

Where the ROW narrows south of Basse Road, the BRT would operate in mixed flow to Hildebrand. At Hildebrand, the BRT route could continue on San Pedro in mixed traffic flow, subject to congestion or it could shift to US 281, via Hildebrand, where it could become an express service operating in a dedicated HOV lane to downtown.

San Pedro will be over capacity in 2040, as will many of the arterials in San Antonio. Removing a lane for transit will further decrease the available capacity for vehicles traveling on San Pedro. However, this does not necessarily decrease the capacity of the corridor in terms of moving people.

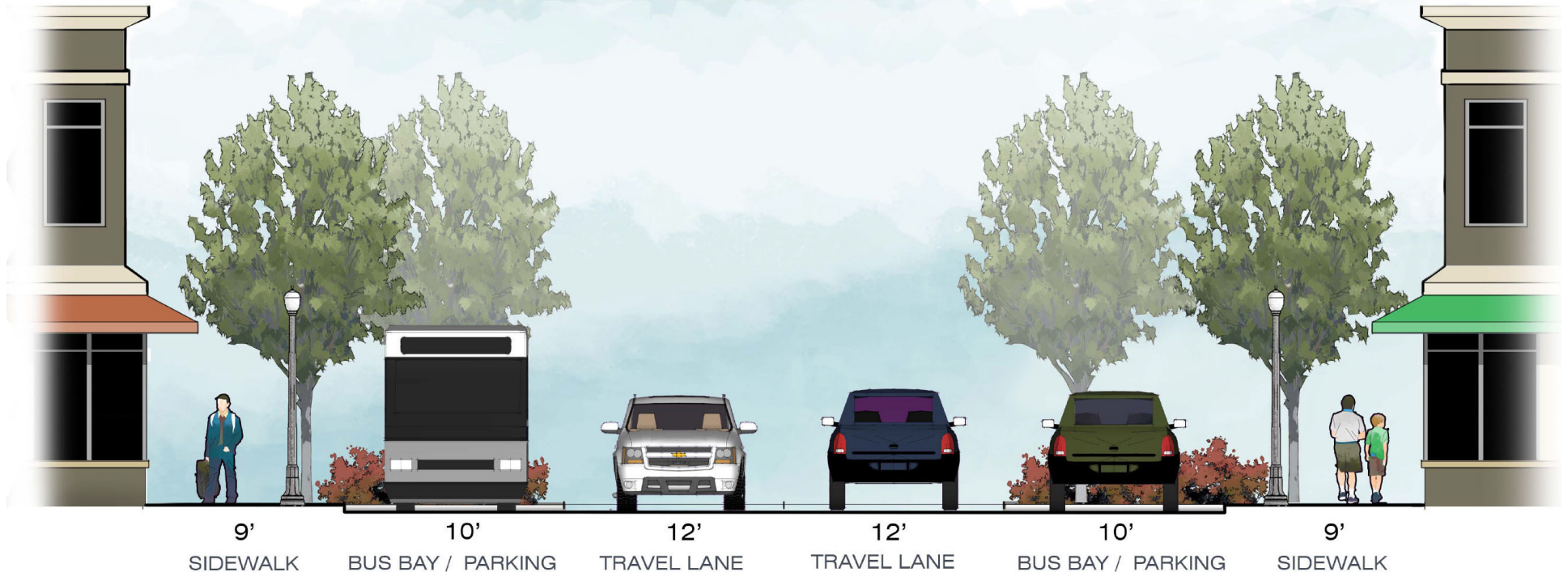
**Challenges:**

- Traffic congestion is an issue for any reconfiguration of the San Pedro corridor and adding capacity through widening would require significant ROW acquisition. In its current form, the major intersections on San Pedro will operate at LOS F by 2040. Dedicating traffic lanes for BRT will further increase vehicle congestion, but will greatly improve travel time and reliability for transit users and can improve capacity by moving more people depending on the frequency of the BRT service.
- The character and ROW on San Pedro changes several times as you move from Loop 410 south into downtown. Proposed improvements and changes to land use must be context sensitive to the surrounding area.
- Successful rapid transit options rely on transit supportive development. Land use policies that encourage higher-density development are needed to support BRT.
- BRT includes investment in infrastructure but not at the same level as LRT and developers may not be as easily encouraged to invest.

**Opportunities:**

- Traffic congestion is an issue for any reconfiguration of the San Pedro corridor and adding capacity through widening would require significant ROW acquisition. In its current form, the major intersections on San Pedro will operate at LOS F by 2040. Dedicating traffic lanes for BRT will further increase vehicle congestion, but can increase capacity by moving more people and improving travel time for transit users.
- The character and ROW on San Pedro changes several times as you move from Loop 410 south into downtown. Propose improvements and changes to land use must be context sensitive to the surrounding area.
- Successful rapid transit options rely on transit supportive development. Land use policies that encourage higher-density development are needed to support BRT.

Future Options 1 & 2: South of Hildebrand



Section: San Pedro, South of Hildebrand (Option 1 and 2)

**Future Option 1: South of Hildebrand**

**Description:**

South of Hildebrand, dedicating a traffic lane to light rail is not likely to be feasible due to very narrow ROW. A potential option is to continue the light rail south on the existing rail line that intersects San Pedro near Hildebrand. This is also the rail line being considered for Lone Star Rail with a proposed station near Hildebrand. South of Hildebrand the proposed cross section considers the much narrower ROW. The corridor will take on the appearance and feel of a Main Street design with landscaping, wider sidewalks and on-street parking that converts to bus pull-outs at stop locations. The bus pull-outs are proposed so that traffic operating in the single travel lane in each direction is not obstructed when buses are at stops. The proposed cross section along this segment of San Pedro has the potential to attract neighborhood retail and businesses. Taking the LRT underground is one solution to the ROW limitations and railroad overpass and Olmos Creek Bridge. However, it is recognized that this solution would come with a very hefty price tag.

**Future Option 2: South of Hildebrand**

**Description:**

South of Hildebrand the proposed cross section considers the much narrower ROW. The corridor will take on the appearance and feel of a Main Street design with landscaping, wider sidewalks and on-street parking that converts to bus pull-outs at stop locations. The bus pull-outs are proposed so that traffic operating in the single travel lane in each direction is not obstructed when buses are at stops.






**San Pedro Option 1: Light Rail Transit Visualization**



**Description:**

Option 1 proposes to construct center-running light rail along San Pedro. Stations would be located on the center median. LRT is a permanent investment that can spur development. Adding population and employment centers along the LRT line will shift trips from cars reducing Vehicle Miles Traveled (VMT) and improving air quality. Although LRT removes a lane for traffic in each direction it can double the capacity of the corridor since it carries so many more people. The potential to double the capacity of the corridor not only helps the San Pedro corridor, but also greatly improves north-south mobility for the region. The travel demand model shows all parallel arterials will also be over capacity, so a light rail service can add capacity through a part of the City that will greatly need it in 2040.



					Recommendations	Benefits
					Bury overhead utilities	Relocating utilities below grade will improve the pedestrian environment helping the corridor achieve ADA compliant facilities, and encourage redevelopment.
					Reduce driveway density	Consolidating driveways will concentrate turning movements to appropriate areas. This will reduce the number of conflict points between cyclists, pedestrians, and vehicles.
					Identify and designate parallel bike routes	If a dedicated bike route is not appropriate for San Pedro, consider an adjacent route that can serve as a viable alternative for bike movements. San Pedro's context is primarily gridded in character, offering numerous alternative routes for connectivity.
					Complete sidewalk gaps on intersecting streets	Continuous sidewalks provide multimodal connections to land uses and promote transit access for pedestrians and persons with disabilities. Sidewalks and associated amenities can spur the redevelopment of vacant land.
					Create pedestrian paths from neighborhoods to San Pedro through commercial parcels where residential streets do not intersect	Providing an improved, inter-connected pedestrian network makes pedestrian movements convenient and accessible. Better pedestrian access to current and future transit amenities will boost transit ridership and promote mobility options.
					Develop a corridor section for center-running LRT or center-running BRT from Basse to IH 410	In this section San Pedro's ROW allows for the inclusion of rapid transit services. Rapid transit service will manage future traffic generated by projected development and growth.
					Develop main street design from I-35 to Hildebrand incorporating on-street parking, streetscaping and bus bays	A main street section reflects and enhances the unique context of the San Pedro corridor. Main Street design features augment the activity generated by San Pedro Park and San Antonio College, and support neighborhood retail and commercial businesses.



Transit Improvements



Pedestrian Improvements



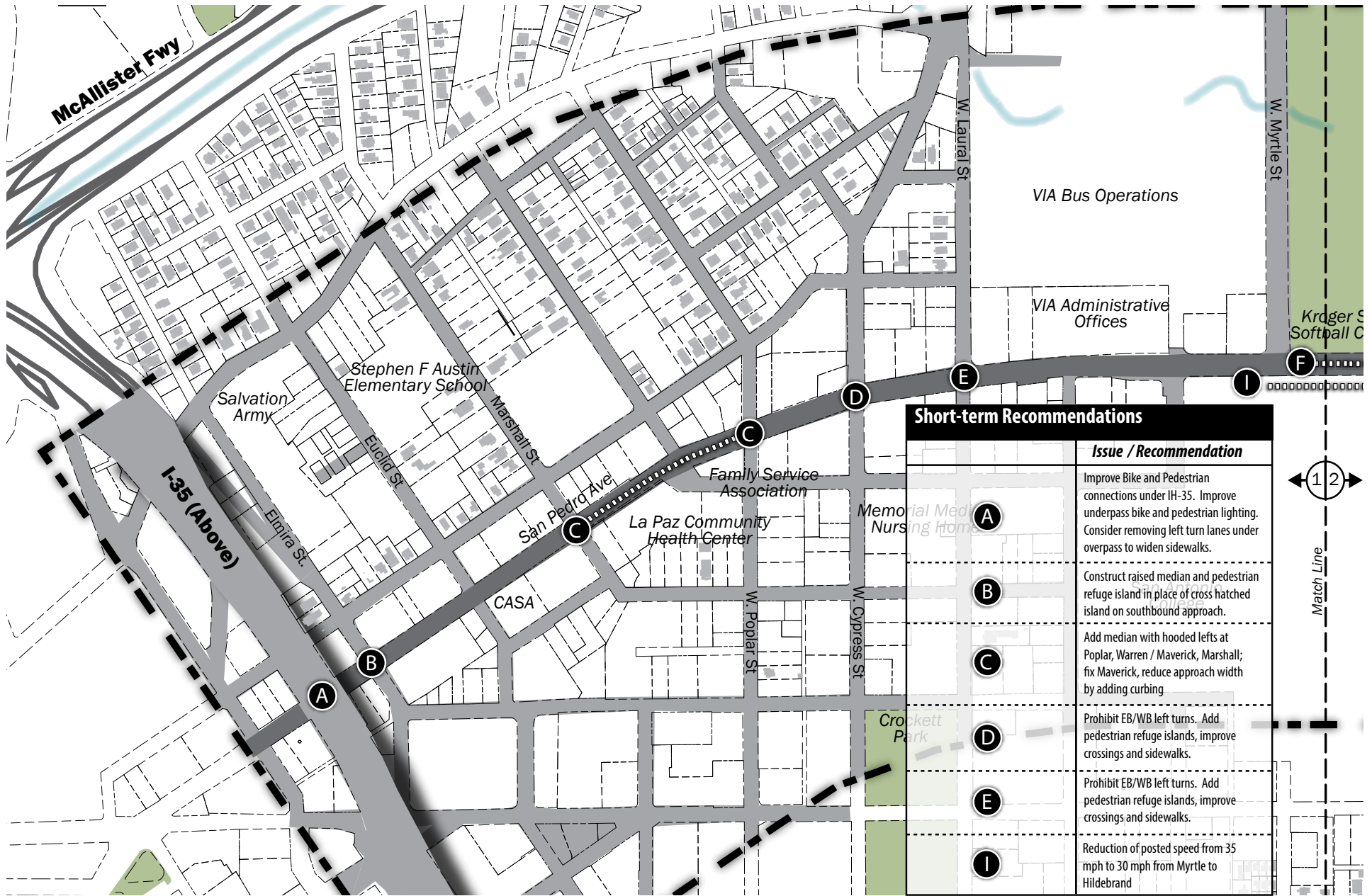
Bicycle Improvements



Vehicular Improvements



Land Use Improvements



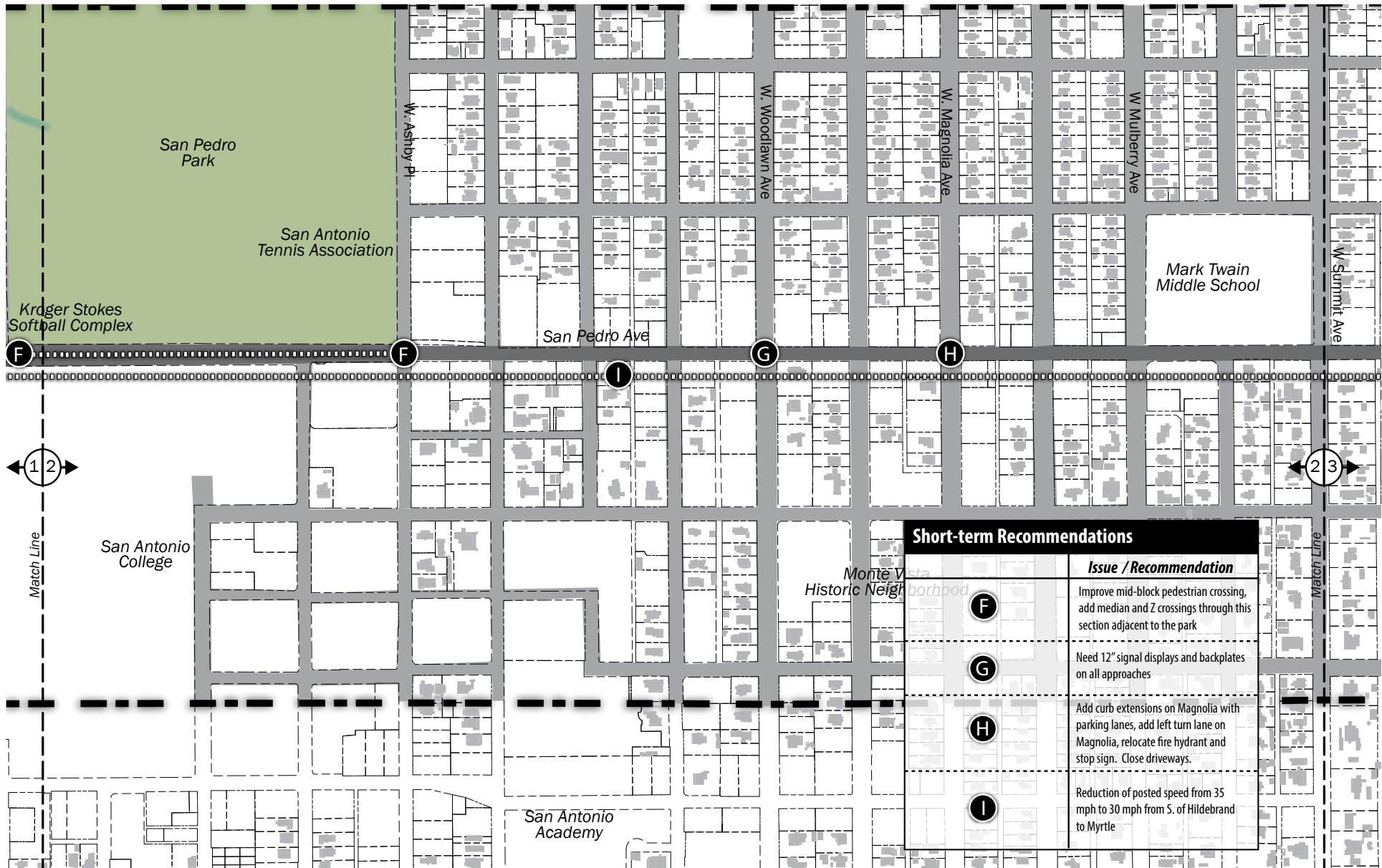
Short-term Recommendations	
	Issue / Recommendation
A	Improve Bike and Pedestrian connections under IH-35. Improve underpass bike and pedestrian lighting. Consider removing left turn lanes under overpass to widen sidewalks.
B	Construct raised median and pedestrian refuge island in place of cross hatched island on southbound approach.
C	Add median with hooded lefts at Poplar, Warren / Maverick, Marshall; fix Maverick, reduce approach width by adding curbing
D	Prohibit EB/WB left turns. Add pedestrian refuge islands, improve crossings and sidewalks.
E	Prohibit EB/WB left turns. Add pedestrian refuge islands, improve crossings and sidewalks.
I	Reduction of posted speed from 35 mph to 30 mph from Myrtle to Hildebrand

San Pedro Ave Corridor: Sheet 1 Short Term Recommendations

DRAFT IN-PROGRESS 04.12.2016

- Open Space
- Study Area





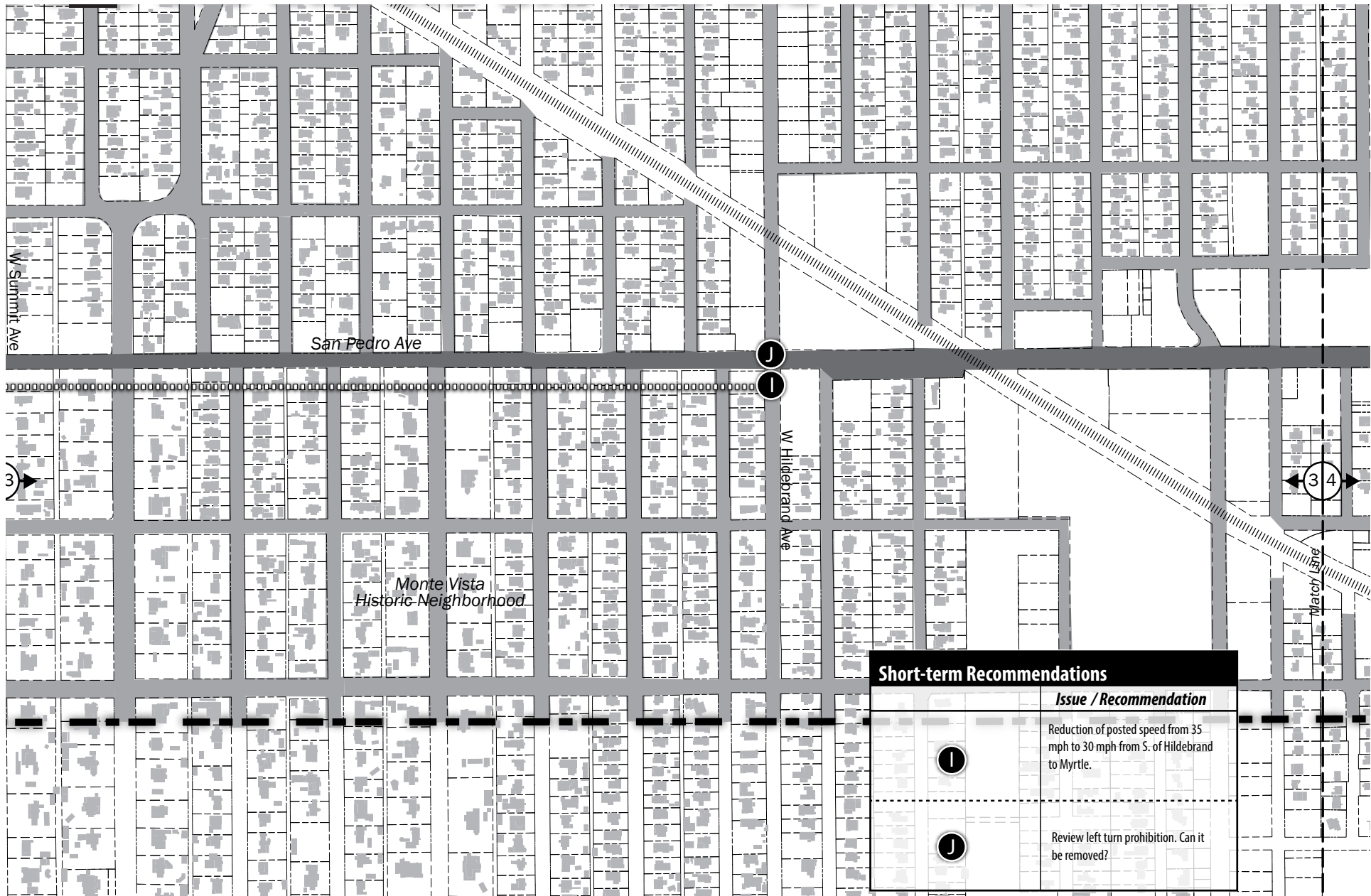
San Pedro Ave Corridor: Sheet 2 Short Term Recommendations

DRAFT IN-PROGRESS 04.12.2016

- Open Space
- Study Area







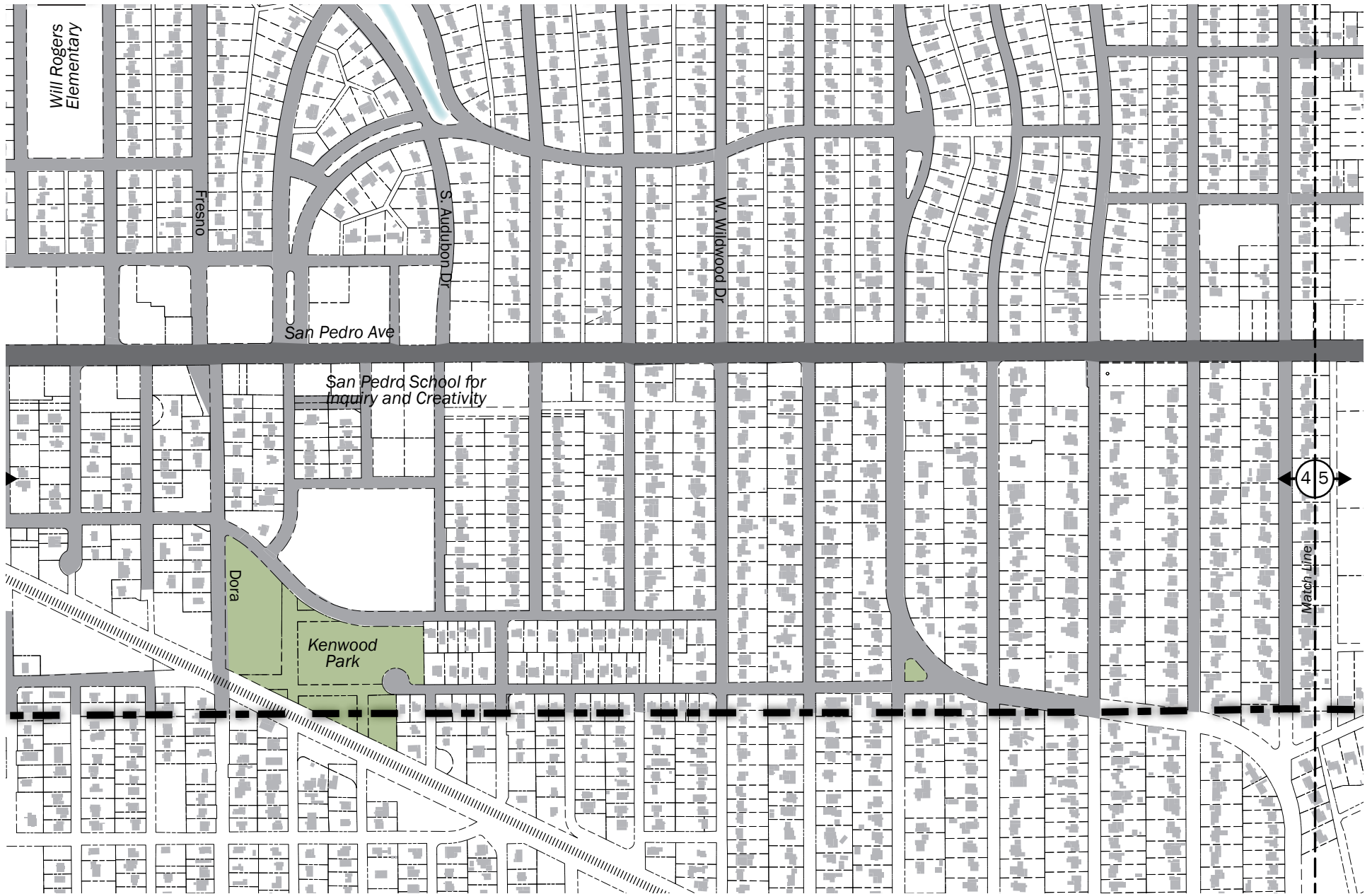
Short-term Recommendations	
	Issue / Recommendation
I	Reduction of posted speed from 35 mph to 30 mph from S. of Hildebrand to Myrtle.
J	Review left turn prohibition. Can it be removed?

San Pedro Ave Corridor: Sheet 3 Short Term Recommendations

DRAFT IN-PROGRESS 04.12.2016

- Open Space
- Study Area



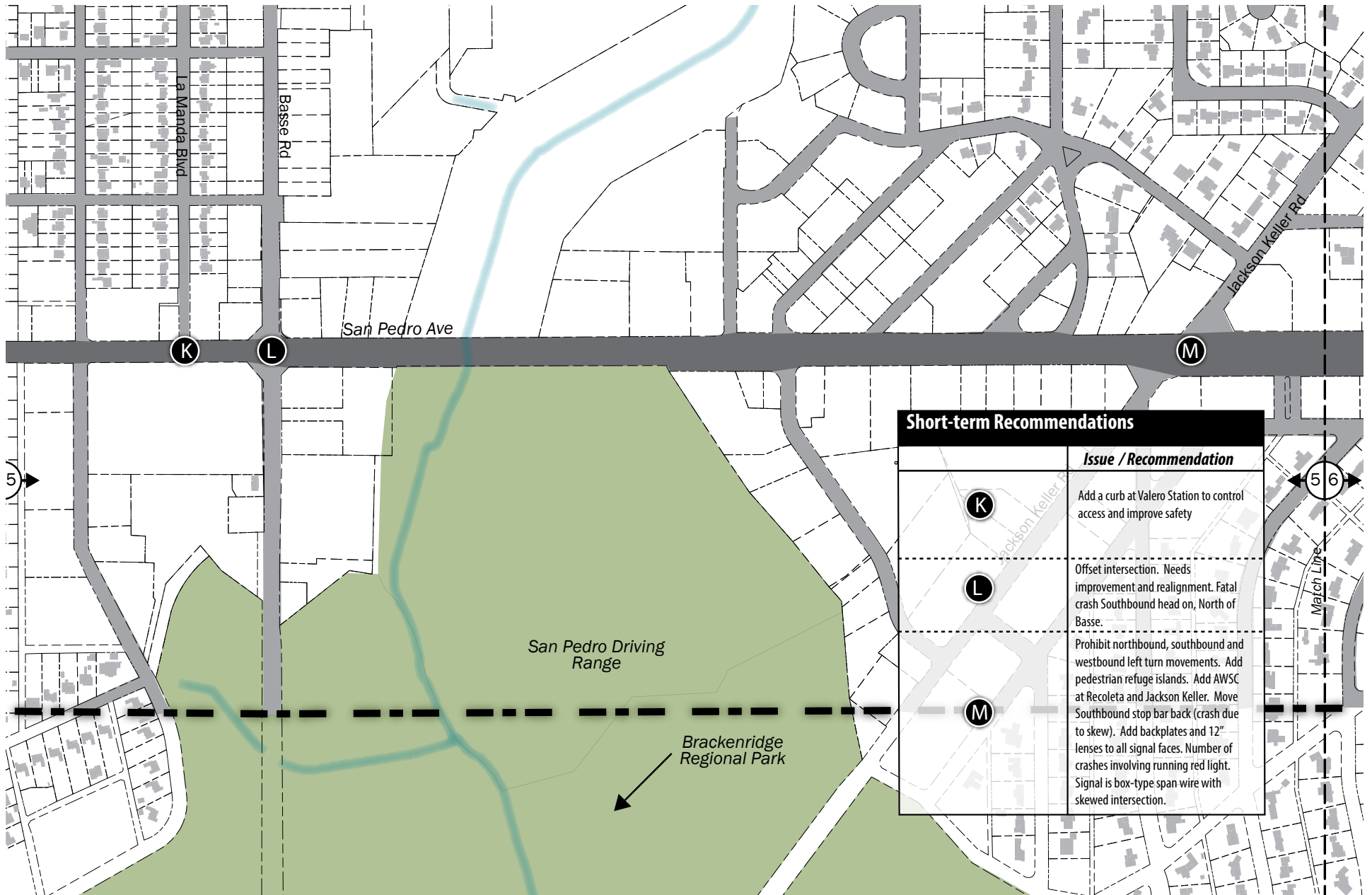


San Pedro Ave Corridor: Sheet 4 Short Term Recommendations

**DRAFT IN-PROGRESS** 04.12.2016

- Open Space
- Study Area



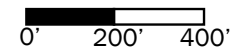


Short-term Recommendations	
	Issue / Recommendation
K	Add a curb at Valero Station to control access and improve safety
L	Offset intersection. Needs improvement and realignment. Fatal crash Southbound head on, North of Basse.
M	Prohibit northbound, southbound and westbound left turn movements. Add pedestrian refuge islands. Add AWSC at Recoleta and Jackson Keller. Move Southbound stop bar back (crash due to skew). Add backplates and 12" lenses to all signal faces. Number of crashes involving running red light. Signal is box-type span wire with skewed intersection.

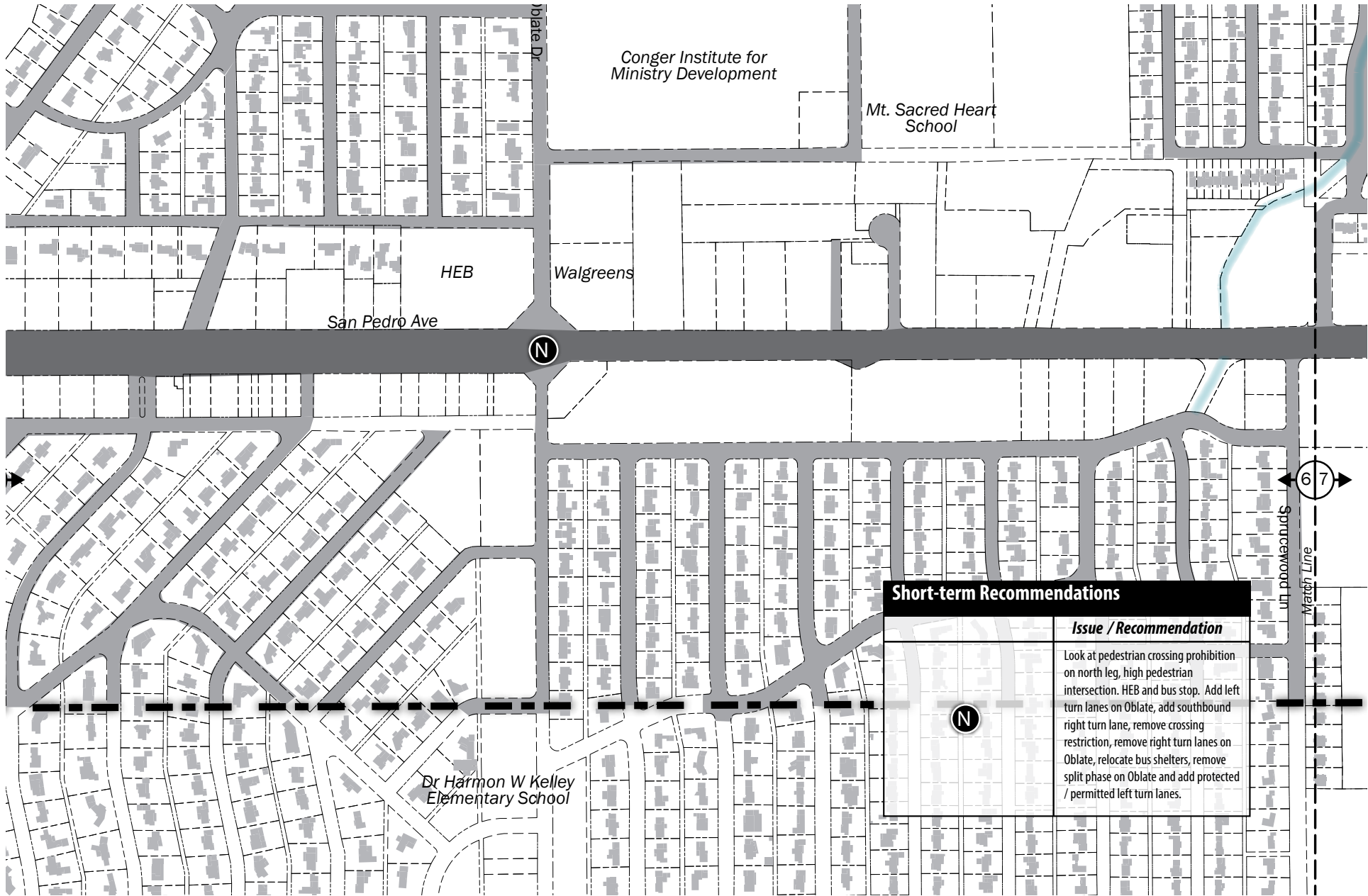
San Pedro Ave Corridor: Sheet 5 Short Term Recommendations

**DRAFT IN-PROGRESS** 04.12.2016

- Open Space
- Study Area



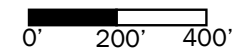


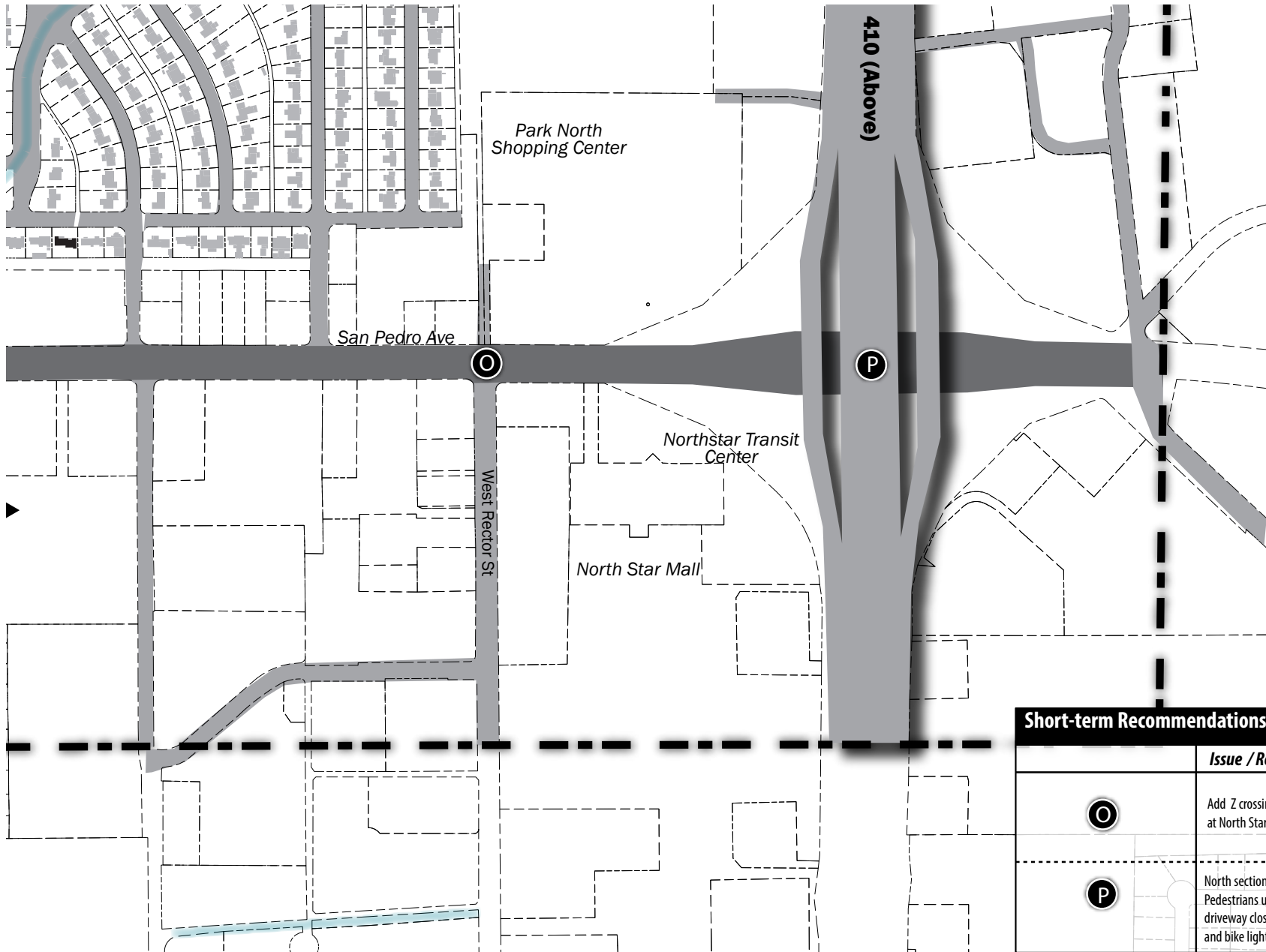


San Pedro Ave Corridor: Sheet 6 Short Term Recommendations

DRAFT IN-PROGRESS 04.12.2016

- Open Space
- Study Area





Short-term Recommendations	
	Issue / Recommendation
O	Add Z crossing and signal modification at North Star Mall / Park North
P	North section of San Pedro is very wide. Pedestrians use TWTL as refuge. Need driveway closures. Improve pedestrian and bike lighting under overpass.

San Pedro Ave Corridor: Sheet 7 Short Term Recommendations

- Open Space
- Study Area

**DRAFT IN-PROGRESS** 04.16.2016

